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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/023,279 02/13/98 RUBINSTEIN

J UIOWA-26

EXAMINER

WM02/1003

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HARVEY, D.	
ART UNIT	PAPER NUMBER

2643
DATE MAILED:

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/023,279

Applicant(s)

Rubinstein

Examiner

Dionne Harvey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 8,9 20) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 U.S.C. § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-8, 11-13, 16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Loeb (US 5,571,148).

Regarding claims 1 and 16, Loeb teaches a signal generator(66) that generates a second signal(see modulated power signal) causing pseudospontaneous activity (see column 11, lines 9-31); a signal processor(60) that combines a first signal(70,72) that represents sound and the

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second signal to output a combined signal(see column 11, line 45 - column 12, line 25); a stimulation unit(20); and transducer means(70).

Regarding claim 11, the method of claim 11 is inherently taught by the apparatus of claims 1 and 16.

Regarding claim 2, Loeb teaches that the stimulation unit is an electrode array(36), also see column 10, lines 25-27.

Regarding claim 3, Loeb teaches that the first signal (see the Address Control Word) is applied to a subset of electrodes (see column 12, lines 22-25) in the electrode array, and the second signal(modulated power signal) is applied to a second subset of electrodes in the electrode array(see column 11, lines 24-31).

Regarding claim 4, Loeb teaches that the second signal is a high rate pulse train (see column 11, lines 24-31) above 3 kilohertz (see column 12, lines 1-3).

Regarding claims 5 and 6, Loeb teaches that the second signal includes rapid state transitions and a frequency greater than approx. 3 kilohertz (see column 11, lines 9-12).

Regarding claim 7, shown in Figure 6, Loeb teaches summing the first and second signals, as broadly claimed.

Regarding claim 8, shown in Figure 4A, Loeb teaches a microphone(70) that generates a first signal, the microphone being coupled to the signal processor(60).

Regarding claim 12, Loeb teaches that the combined signal is applied to the auditory nerve(column 10, lines 25-27) and the first signal is received from the signal processor(60).

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Regarding claim 13, Loeb teaches that the first signal represents speech(72), and the second signal is above 3 kilohertz(column 11, lines 9-34).

Regarding claim 18, Loeb teaches that the pseudospontaneous signal is a high rate pulse train (column 11, lines 24-31).

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9,10,15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loeb (US 5,571,148).

Regarding claims 9,15 and 17, Loeb fails to teach that the signals are combined by adding, multiplying or an AND operator. However, the Examiner takes the Official Notice that the use of such operators when summing signals is well known in the art and it would be obvious to one of ordinary skill in the art at the time of the invention to employ any one of a number of combining methods to transmit a plurality of signals.

Regarding claim 10, Loeb teaches a microphone(70); signal processor(60); signal generator(66) and stimulation unit(45,36) coupled to the auditory nerve via cochlea. Loeb fails to

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specifically teach coupling between the stimulation unit and signal processor via wire. However, as disclosed in column 9, lines 47-58, Loeb teaches that "...several available coupling techniques may be used." for coupling information between the processor and the implanted stimulator . Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to employ any one of a variety of coupling techniques disclosed by Loeb to transmit information to the implanted stimulators.

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statements for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne Harvey whose telephone number is (703) 305-1111. The examiner can normally be reached on Monday through Friday from 8:30am to 6:00pm.

Any responses to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

or faxed to:

(703) 308-6306, for formal communications for entry

Or:

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(703) 308-6296, for informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor(Receptionist)

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached at (703) 305-4708.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne Harvey whose telephone number is (703) 305-1111.

D.H.


CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600